

IN THE CLAIMS:

Please cancel claims 4 and 9 and amend claims 1, 2, 10 and 11 to read as follows:

1. (Currently Amended) A method for minimizing the error of ~~a measured variable, particularly a signal to be measured,~~ using filtering at variable bandwidth, said method comprising the ~~step~~ steps of: regulating

determining an absolute value of the distance of an observed filter output to at least one further filter output having lower bandwidth;

if the absolute value falls below a threshold value, which is a predefined multiple of the intrinsic noise of the measuring sensor, using the observed filter to display the signal;

if the absolute value exceeds the threshold value, recognizing a significant change of the information component in the signal, using a filter having at least one of (a) higher bandwidth and (b) lower response time to display the signal;

wherein the difference of the signal from a version of the signal whose bandwidth is delimited more strongly is observed as a variation of the signal; and

wherein the bandwidth is regulated on the basis of a physical criterion inherent to the method in such a way that signal changes not caused by noise are recognized ~~as early as possible~~.

2. (Currently Amended) The method according to Claim 1, wherein the bandwidth is regulated in such a way that the variation of the signal does not substantially exceed a predefined multiple of the intrinsic noise of the measuring sensor.

3. (Previously Presented) The method according to Claim 2, wherein the intrinsic noise is calculated from the known spectral noise output density of the measuring sensor and the bandwidth of the filter.

4. (Canceled).

5. (Previously Presented) The method according to Claim 1, wherein a suitable filter is selected from a filter bank in the framework of the bandwidth regulation.

6. (Previously Presented) The method according to Claim 5, wherein a standardized linear combination of at least two outputs of the filter bank is used instead of an individual filter from the filter bank.

7. (Previously Presented) The method according to Claim 5, wherein the filter bank is a parallel circuit of filters.

8. (Previously Presented) The method according to Claim 5, wherein low-pass filters are used as filters in the filter bank.

9. (Canceled).

10. (Currently Amended) The method according to Claim 9 1, wherein the filter which has the lowest bandwidth of all filters whose output signals do not exceed the threshold value is used to display the signal to be measured.

11. (Currently Amended) The method according to Claim 9 1, wherein the threshold value is a multiple of the standard deviation of the intrinsic noise of the measuring sensor.

12. (Previously Presented) The method according to Claim 1, further comprising the steps of receiving the signal to be measured from a device selected from the group consisting of strain gauges, PT100 sensors, thermocouples, piezoresistive sensors, and thermal radiation detectors, and displaying the measured variable.

13. (Previously Added) The method according to Claim 5, wherein the filter bank is a series circuit of filters.